

REMARKS

The Amendment

Claim 1 is amended to insert that R_2 is O or absent, or R_1 and R_2 taken together form a substituted 5-membered fused imidazole ring. Support for the amendment that R_2 is O can be found at page 12, line 1, which recites that the substituted derivatives of adenine include adenine 1-oxide; and page 14, lines 18-19, which describes adenine 1-oxide. Support for the amendment that R_2 is absent can be found at page 12, lines 1-2, which recites that the substituted derivatives of adenine include 6-substituted adenine and 8-substituted aminoadenine; and page 14, lines 16-17, which describes adenine. Support for the amendment that R_1 and R_2 taken together form a substituted 5-membered fused imidazole ring can be found at page 12, lines 1-2, which recites that the substituted derivatives of adenine include 1,N6-(4- or 5-substituted etheno)adenine; and page 14, lines 20-21, which describes 1,N6- ethenoadenine.

Claim 4 is canceled.

Claims 11-13 are amended to correct the dependency of the claims.

New Claims 16 and 17 are supported by page 5, lines 13-14.

No new matter is added in any of the above amendments. The Examiner is requested to enter the amendment and reconsider the application.

Claim Objections

Claims 4 and 11-13 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Claim 4 is canceled. Claims 11-13 are amended to correct the claim dependency to claim 1.

35 U.S.C. §112, 2nd Paragraph Rejection

Claims 1, 2, 4, and 7-14 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner states that variables R_1 and R_2 of Formula IIa have not been defined by the

claims. R₁ was defined in Claim 1. As to R₂, Applicants have amended Claim 1 to insert the description of R₂.

Claim 8 is amended to recite “an ocular surface.”

Therefore, the 35 U.S.C. §112, 2nd Paragraph Rejection should be withdrawn.

Double Patenting Rejections

1. Claims 1, 2, 4, and 7-15 are rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over Claims 1-9 of U.S. Patent No. 5,900,407. The rejection is traversed.

The present invention is directed to a method of enhancing drainage of the lacrimal system. The ‘407 Patent is directed to a method of stimulating tear secretion from lacrimal tissues. A method of enhancing drainage of the lacrimal system is not an obvious variation of a method of stimulating tear secretion. The two methods involve different parts of tissues, have opposite mechanisms and different functions, and achieve different end results.

A method of enhancing drainage of the lacrimal system involves the nasolacrimal duct, which is a tube for drainage of lacrimal fluid. Tears are produced by the lacrimal gland located in the upper outer portion of each eye. Tears drain down and cascade over the eye. Tears then drain into the tear ducts and down into the nasolacrimal duct located on the inner portion of each eye. Tears will accumulate and overflow onto the cheek if there is an excessive amount of tears produced, or if the nasolacrimal duct is blocked.

The present method enhances the drainage of tears from the eye into the nasolacrimal duct. When the lacrimal drainage system is not functioning properly, it results in excessive tearing, mucopurulent discharge, and recurrent dacryocystitis. The most common malfunction of the lacrimal drainage system is nasolacrimal duct obstruction, which results in stasis of tears in the lacrimal sac. The accumulation of fluid and mucus results in tearing and expulsion of mucopurulent material, causing the eyelids to be “stuck together” on awakening in the morning. The lack of clearance of the tear fluid also leads to inflammation and chronic infection of the lacrimal sac and ducts (see page 2, line 30, through page 3, line 8).

The lacrimal system has two functioning components: the secretory part, which produces tears, and the excretory part, which drains the tears into the nose. A method of

stimulating tear secretion increases the amount of tear fluid produced by the eye and protects the ocular surface. Increasing drainage alone would decrease the tear fluid accumulated in the eye.

A method of stimulating tear secretion and a method of enhancing drainage of the lacrimal system are opposite mechanisms and achieve the opposite results. A skilled person would not have a reasonable expectation of success in employing a method of stimulating tear secretion to enhance drainage of the lacrimal system.

2. Claims 1, 2, 4, and 7-15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over Claims 1-11 of copending Application No. 10/010,055. The rejection is traversed.

The '055 Application is directed to a method of stimulating tear secretion and mucin production in eyes. For the same reason as stated above in paragraph 1, the rejection is traversed.

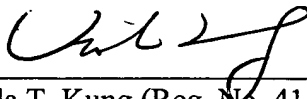
Therefore, the obviousness-type double-patenting rejections should be withdrawn.

CONCLUSION

Applicants believe that the application is in good and proper condition for allowance. Early notification of allowance is earnestly solicited. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is encouraged to call the undersigned at (650) 463-8181.

Respectfully submitted,

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